AMENDMENT TO THE CLAIMS

1. (previously presented) A tissue comprising linkers bonded to the tissue and bridges having functional groups, the bridges being bonded by the functional groups between two or more of the linkers, wherein the linkers and the bridges are chemically different and the bridges are not glutaraldehyde, and the functional groups of the bridges are generally non-reactive with other bridges.

2. (original) The tissue of claim 1 wherein the tissue comprises extracellular matrix selected from the group consisting of collagenous fibrils, GAG and elastin.

3. (original) The tissue of claim 1 wherein the two linkers and the bridge bonded between the two linkers span a distance of between about 10 Angstroms and about 100 Angstroms.

4. (original) The tissue of claim 1 wherein the two linkers and the bridge bonded between the two linkers span a distance of between about 15 Angstroms and about 50 Angstroms.

5. (original) The tissue of claim 1 wherein the bridge is a single molecule.

6. (original) The tissue of claim 1 wherein the bridge is reactive with modified tissue.

7. (original) The tissue of claim 1 wherein the bridge comprises functional groups selected from the group consisting of methylthio, thio, amine, alcohol, carboxyl and combinations thereof.

8. (original) The tissue of claim 1 wherein the bridge comprises a hydrocarbon backbone.

9. (original) The tissue of claim 1 wherein the linkers comprise monomers, dimers and oligomers.

10. Cancelled

11. (original) The tissue of claim 1 wherein the linkers comprise functional groups selected from the group consisting of aldehydes, epoxies, imide groups, photooxidative groups, enzymatically oxidative groups and combinations thereof.

12. (original) The tissue of claim 1 wherein the linkers comprise crosslinking agents.

13. (original) The tissue of claim 1 wherein the linker is selected from the group consisting of glutaraldehyde, triglycidyl amine and epoxy.

14. (original) The tissue of claim 1 wherein a bioprosthetic device comprises the tissue.

15. (original) The tissue of claim 14 wherein the bioprosthetic device is a heart valve prosthesis.

16. (previously presented) A method of crosslinking tissue comprising treating the tissue with a linker composition comprising linkers and a bridge composition comprising bridges wherein the linkers bond to the tissue and the bridges having functional groups for bonding between two of the linkers, wherein the bridges and the linkers are chemically different and the bridges are not glutaraldehyde, and the functional groups of the bridges are generally non-reactive with other bridges.

17. (original) The method of claim 16 wherein the tissue comprises proteins.

18. (original) The method of claim 16 wherein the tissue is treated with the linker composition and the bridge composition simultaneously.

19. (original) The method of claim 16 wherein the tissue is treated with the linker composition

prior to addition of the bridge composition.

20. (original) The method of claim 16 wherein the linker composition and the bridge composition are combined prior to treating the tissue.

21. (original) The method of claim 16 wherein the linker composition comprises crosslinking agents.

22. (previously presented) The method of claim 16 wherein the concentration of the linkers in the linker composition is between about 0.0001 molar and about 1 molar.

23. (original) The method of claim 16 wherein the concentration of the bridges in the bridge composition is between about 1×10^{-7} molar and about 1 molar.

24. (original) The method of claim 16 wherein the tissue is treated with the linker composition and the bridge composition for between about 10 minutes and about one month.

25. (original) The method of claim 16 wherein the tissue is treated with the linker composition and the bridge composition for between about 10 minutes and about 2 weeks.

26. (original) The method of claim 16 wherein the bridges comprise multiple functional groups.

27. (original) The method of claim 16 wherein the treatment of the tissue further comprises exposing the tissue to activators.

28. (original) The method of claim 27 wherein the activators are selected from the group consisting of ultraviolet light, visible light and enzymes.

29-33 Cancelled

34. (previously presented) A tissue comprising modified sites and bridge molecules, wherein said bridge molecules have functional groups for bonding to two or more modified sites in the tissue, and the functional groups of the bridge molecules are generally non-reactive with other bridge molecules and the bridge molecules are not glutaraldehyde.

35. (original) The tissue of claim 34 wherein the modified sites comprise aldehyde groups.

36. (previously presented) A method of crosslinking tissue having modified sites comprising treating said tissue with a bridge composition comprising bridge molecules, wherein the bridge molecules have functional groups for bonding to two or more modified sites in the tissue, and the functional groups of the bridge molecules are generally non-reactive with other bridge molecules and the bridge molecules are not glutaraldehyde.

37. (original) The method of claim 36 wherein the modified sites comprises aldehyde groups.

38. (previously presented) The tissue of claim 34 wherein said bridge molecules comprise functional groups selected from the group consisting of methylthio, amine, alcohol, carboxyl and combinations thereof.

39. (previously presented) The tissue of claim 34 wherein said bridge molecules are substantially non-reactive to tissues having no modified sites.

40. (previously presented) The tissue of claim 34 wherein said bridge molecules comprise functional groups located at opposite ends of said bridge molecules.

41. (previously presented) The method of claim 36 wherein said bridge molecules comprise

functional groups selected from the group consisting of methylthio, amine, alcohol, carboxyl and combinations thereof.

42. (previously presented) The method of claim 36 wherein said bridge molecules comprise a functional groups located at opposite ends of said bridge molecules.

43. (previously presented) The tissue of claim 1 wherein said bridge molecules are substantially non-reactive to tissues having no modified sites.

44. (new) A tissue comprising linkers bonded to the tissue and bridges having functional groups, the bridges being bonded by the functional groups between two or more of the linkers, wherein the linkers and the bridges are chemically different, the functional groups of the bridges are selected from the group consisting of methylthio, thio, amine, alcohol and carboxyl groups and combinations thereof, and the functional groups of the bridges are generally non-reactive with other bridges